ArcelorMittal Burns Harbor, LLC.
Flat Carbon Steel

ArcelorMittal

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Mr. James Filippini
Mr. Douglas Lamb
Water Division Compliance Branch
United States Environmental Protection Agency, Region V
77 West Jackson Boulevard (WC-15J)
Chicago, Illinois 60604-3590

December 7, 2017
PJ/DW

Subject: Annual Dock Wall Observation and Repair
Consent Decree – Case No. 2:96-CV-96-RL-1
ArcelorMittal Burns Harbor LLC

Dear Messrs. Filippini and Lamb:

Attachment 1 is the summary report of the annual dock wall inspection for 2017. This document summarizes the results of the annual dock wall observation that was conducted on October 13, 19, November 2, and 14, 2017, by Weaver Consultants Group, contractor to ArcelorMittal Burns Harbor, as required by Paragraph 21 of the subject decree.

During the annual observations, twenty (20) locations were found along the dock wall with discernible discharges of flowing water. Notification regarding these findings was made via e-mail to Ms. Susan Prout (EPA Region V, Office of Regional Counsel) by T. E. Kirk on October 20, and November 6, 2017. The inspection was delayed this year due to the cleaning of the 16 water removal wells to increase the flowrate within the wells.

All of the locations were found in the coffer dam section of the dock wall. The height above the Lake Michigan level and the estimated flow from each location are noted in Attachment 1.

Samples were obtained from all locations and submitted to a contract analytical laboratory for nitrogen-ammonia analysis. The reports of these analyses are provided in Attachment 2. The results are also summarized in Attachment 1 and used to estimate the daily ammonia mass discharge from these locations. Digital photographs of each of the locations were also obtained and are provided in Attachment 3.

ArcelorMittal Burns Harbor, LLC.
Environmental Mgmt. Dept.
250 W. U.S. Highway 12
Burns Harbor, IN 46304
USA

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Due to the construction of the dock face, a procedure is being developed to ensure repairs are complete and adequate to prevent recurrence. Repairs will be contracted as soon as the procedure is completed. Due to the complexity of the repairs and heavy boat traffic, an estimated date of completion of repairs is not yet available. Photographs of the locations after repair/sealing will be provided in a separate report.

No one particular cause for the discharges was identified. Because the discharges were observed along the coffer dam section of the harbor wall and the nitrogen-ammonia concentrations of most of the discharges are well below the concentration of the groundwater being captured by the dewatering well system (i.e., average of 7.0 mg/L for the previous 12 months), it is surmised that these concrete cellular revetments were discharging accumulated stormwater runoff that had inadvertently seeped through the caps of these structures. Therefore, the source of the water is not groundwater that is adequately being controlled by the dewatering well system. Based on the ammonia concentrations and estimated flow rates summarized in Attachment 1, approximately four tenths of a pound per day (0.40 lbs/day) of ammonia is being discharged to the harbor from all 20 locations. In addition, all of the dockwall dewatering wells were cleaned during the 3rd and 4th quarters of 2017. This provided a significant increase in flow which will provide for better removal of any ammonia bearing waters. Notwithstanding, Burns Harbor has responded as quickly as possible to the identification of the locations to timely minimize and/or eliminate any potential impact.

If there are any questions concerning this matter, please contact T. E. Kirk or me at (219) 787-2712.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and that I have made a diligent inquiry of those individuals immediately responsible for obtaining the information and that to the best of my knowledge and belief, the information submitted herewith is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Very truly yours,

R. A. Maciel, Manager
Environmental Management Department

Attachments

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ArcelorMittal Burns Harbor, LLC
Annual Dock Wall Observation
Consent Decree – Case No. 2:96-CV-96-RL-1

Attachment 1 – Summary Report of the 2017 Annual Dock Wall Inspection

ArcelorMittal Burns Harbor, LLC
October 13, 19, November 2, and 14, 2017 Dock Wall Inspection
Performed by: Weaver Boos Consultants

ID Number	Height Above Water (feet)	Estimated Flow Rate (Liters/minute)	Estimated Flow (Gal/Min)	Ammonia Concentration* (mg/L)	Ammonia Dischage (Pounds/day)	Date of Repair
17-1	5	0.10	0.03	12	0.004	TBD
17-2	0	0.10	0.03	5	0.002	TBD
17-3	2	0.06	0.02	4.7	0.001	TBD
17-4	5	3.20	0.85	4.1	0.042	TBD
17-5	5	0.10	0.03	3	0.001	TBD
17-6	5	8.10	2.14	1.1	0.028	TBD
17-7	3	0.26	0.07	1.1	0.001	TBD
17-8	3	0.22	0.06	2	0.001	TBD
17-9	2.5	1.86	0.49	1.5	0.009	TBD
17-10	2	1.20	0.31	3	0.011	TBD
17-11	3.5	3.66	0.97	.075	0.009	TBD
17-12	3	1.20	0.32	0.34	0.001	TBD
17-13	4	0.18	0.05	0.68	<0.001	TBD
17-14	2.5	0.34	0.09	0.27	<0.001	TBD
17-15	3.5	6.30	1.66	2.7	0.054	TBD
17-16	4	4.80	1.27	1.1	0.017	TBD
17-17	3	0.72	0.19	5.2	0.012	TBD
17-18	4	0.70	0.18	3.1	0.007	TBD
17-19	4.5	0.42	0.11	0.45	0.001	TBD
17-20	5	0.30	0.08	0.72	0.001	TBD

Total Potential Ammonia Discharge (pounds per day) from all locations: **0.40**

* Results reported are the larger of the sample and duplicate analysis.

ArcelorMittal Burns Harbor, LLC
Annual Dock Wall Observation
Consent Decree – Case No. 2:96-CV-96-RL-1

Attachment 2 – Nitrogen Ammonia Analytical Results

MICROBAC

October 23, 2017

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 17J1063

Re: Dock Wall Inspection

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 12 sample(s) on 10/13/2017 5:05:00PM for the analyses presented in the following report as Work Order 17J1063.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Donna Ruokonen, Managing Director, at donna.ruokonen@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Carey Gadzala
Project Manager

MICROBAC

WORK ORDER SAMPLE SUMMARY

Date: *Monday, October 23, 2017*

Client: Arcelor Mittal USA, Inc.
Project: Dock Wall Inspection
Lab Order: 17J1063

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
17J1063-01	17-1		10/13/2017 11:59	10/13/2017 5:05:00PM
17J1063-02	17-1 Duplicate		10/13/2017 11:59	10/13/2017 5:05:00PM
17J1063-03	17-2		10/13/2017 13:01	10/13/2017 5:05:00PM
17J1063-04	17-2 Duplicate		10/13/2017 13:01	10/13/2017 5:05:00PM
17J1063-05	17-3		10/13/2017 13:37	10/13/2017 5:05:00PM
17J1063-06	17-3 Duplicate		10/13/2017 13:37	10/13/2017 5:05:00PM
17J1063-07	17-4		10/13/2017 14:22	10/13/2017 5:05:00PM
17J1063-08	17-4 Duplicate		10/13/2017 14:22	10/13/2017 5:05:00PM
17J1063-09	17-5		10/13/2017 14:35	10/13/2017 5:05:00PM
17J1063-10	17-5 Duplicate		10/13/2017 14:35	10/13/2017 5:05:00PM
17J1063-11	17-6		10/13/2017 15:20	10/13/2017 5:05:00PM
17J1063-12	17-6 Duplicate		10/13/2017 15:20	10/13/2017 5:05:00PM

MICROBAC

Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-01
Client Sample ID:	17-1	**Sampled:**	10/13/2017 11:59
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**			Prep Date/Time: **10/19/2017 08:42**		
Nitrogen, Ammonia (As N)	**dio**	A	***11***	0.10		mg/L	1	10/19/2017 12:58

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-02
Client Sample ID:	17-1 Duplicate	**Sampled:**	10/13/2017 11:59
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**			Prep Date/Time: **10/19/2017 08:42**		
Nitrogen, Ammonia (As N)	**dio**	A	***12***	0.10		mg/L	1	10/19/2017 13:03

MICROBAC

Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-03
Client Sample ID:	17-2	**Sampled:**	10/13/2017 13:01
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**				Prep Date/Time: **10/19/2017 08:42**	
Nitrogen, Ammonia (As N)	**dio**	A	***4.8***	0.10		mg/L	1	10/19/2017 13:05

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-04
Client Sample ID:	17-2 Duplicate	**Sampled:**	10/13/2017 13:01
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**			Prep Date/Time: **10/19/2017 08:42**		
Nitrogen, Ammonia (As N)	**dio**	A	***5.0***	0.10		mg/L	1	10/19/2017 13:07

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-05
Client Sample ID:	17-3	**Sampled:**	10/13/2017 13:37
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**				Prep Date/Time: **10/19/2017 08:42**	
Nitrogen, Ammonia (As N)	**dio**	A	***4.7***	0.10		mg/L	1	10/19/2017 13:09

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-06
Client Sample ID:	17-3 Duplicate	**Sampled:**	10/13/2017 13:37
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**			Prep Date/Time: **10/19/2017 08:42**		
Nitrogen, Ammonia (As N)	**dio**	A	***4.7***	0.10		mg/L	1	10/19/2017 13:11

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-07
Client Sample ID:	17-4	**Sampled:**	10/13/2017 14:22
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**			Prep Date/Time: **10/19/2017 08:42**		
Nitrogen, Ammonia (As N)	**dio**	A	***4.1***	0.10		mg/L	1	10/19/2017 13:13

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-08
Client Sample ID:	17-4 Duplicate	**Sampled:**	10/13/2017 14:22
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**					Analyst: **GRIEFF**
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**				Prep Date/Time:	**10/19/2017 11:15**
Nitrogen, Ammonia (As N)	**dio**	A	***3.9***	0.10		mg/L	1	10/19/2017 13:34

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-09
Client Sample ID:	17-5	**Sampled:**	10/13/2017 14:35
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**				Prep Date/Time: **10/19/2017 11:15**	
Nitrogen, Ammonia (As N)	**dio**	A	***2.9***	0.10		mg/L	1	10/19/2017 13:36

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-10
Client Sample ID:	17-5 Duplicate	**Sampled:**	10/13/2017 14:35
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**				Prep Date/Time: **10/19/2017 11:15**	
Nitrogen, Ammonia (As N)	**dio**	A	***3.0***	0.10		mg/L	1	10/19/2017 13:38

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Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-11
Client Sample ID:	17-6	**Sampled:**	10/13/2017 15:20
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **GRIEFF**	
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**			Prep Date/Time: **10/19/2017 11:15**		
Nitrogen, Ammonia (As N)	**dio**	A	***1.1***	0.10		mg/L	1	10/19/2017 13:48

MICROBAC

Analytical Results

Date: *Monday, October 23, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection	**Work Order/ID:**	17J1063-12
Client Sample ID:	17-6 Duplicate	**Sampled:**	10/13/2017 15:20
Sample Description:		**Received:**	10/13/2017 17:05
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**					Analyst: **GRIEFF**
Nitrogen, Ammonia as N			Prep Method: **Aqueous Ammonia Distillatio**				Prep Date/Time:	**10/19/2017 11:15**
Nitrogen, Ammonia (As N)	**dio**	A	***1.1***	0.10		mg/L	1	10/19/2017 13:50

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[d] Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
[i] Kansas Dept Health & Env. NELAP (#E-10397)
[o] Virginia Department of General Services Division of Consolidated Laboratory Services (#7990)

MICROBAC

COOLER INSPECTION

Date: Monday, October 23, 2017

Client Name: Arcelor Mittal USA, Inc.

Date/Time Received: 10/13/2017 17:05

Work Order Number: 17J1063

Received by: Nicole Rainwater

Checklist completed by: 10/13/2017 9:04:00PM | Nicole Rainwater

Reviewed by: 10/16/2017 | BF

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 0.0° C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☑	No	☐		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments: 17-6 & 17-6 Dup not on COC.

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
17J1063-01	17-1	
17J1063-02	17-1 Duplicate	
17J1063-03	17-2	
17J1063-04	17-2 Duplicate	
17J1063-05	17-3	
17J1063-06	17-3 Duplicate	
17J1063-07	17-4	
17J1063-08	17-4 Duplicate	
17J1063-09	17-5	
17J1063-10	17-5 Duplicate	
17J1063-11	17-6	
17J1063-12	17-6 Duplicate	

17J1063
ArcelorMittal - Burns Harbor, IN
Dock Wall Inspection
10/13/2017
Carey Gadzala

MICROBAC®

Samples Submitted to: [X] 250 West 84th Drive, Merrillville, IN 46410, Tel: 219-769-8378, Fax: 219-769-1664 [ ] 5713 West 85th Street, Indianapolis, IN 46278, Tel: 317-872-1375, Fax: 317-872-1379

Chain of Custody Record

Number **142950**

Instructions on back

e ArcelorMittal BH	Project Dock Wall Inspection	Turnaround Time	Report Type
	Location Burns Harbor	[X] Routine (5 to 7 business days)	[ ] Results Only [ ] Level II
Zip Burns Harbor IN	PO #	[ ] RUSH* (notify lab)	[ ] Level III [ ] Level III CLP-like
Teri Kirk	Compliance Monitoring? [ ] Yes [ ] No	(needed by)	[ ] Level IV [ ] Level IV CLP-like
# 219 787 4643	(1)Agency/Program		[ ] EDD

(PRINT) Patricia Kostro Sampler Signature Patricia Kostro Sampler Phone # 219 808 9099

t via [ ] Mail [ ] Telephone [ ] Fax (fax #) [X] e-mail (address) TKirk@arcelorMittal.com

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analyses → Preservative Types ** ↓	N/H 3								For Lab Use Only
17-1	W	X			10/13/17	1159	1	2	X								17J1063 -01
17-1 Duplicate	↓	↓				1159	1	2	X								-02
17-2						1301	1	2	X								-03
17-2 Duplicate						1301	1	2	X								-04
17-3						1337	1	2	X								-05
17-3 Duplicate						1337	1	2	X								-06
17-4						1422	1	2	X								-07
17-4 Duplicate						1422	1	2	X								-08
17-5						1435	1	2	X								-09
17-5 Duplicate	↓	↓			↓	1435	1	2	X								-10 10/13/17 NK

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive Sample Disposition [ ] Dispose as appropriate [ ] Return [ ] Archive -11=17-6

Comments: Received 17-6 & 17-6 Dup Not on COC but Logged in. Date = 10-13-17 @ 1520

To be completed by Microbac	Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Temperature Upon Receipt (°C) 0-5-0-5 = 0	Patricia Kostro	10-13-17/1705		-12=17-6 Dup
Samples Received on Ice? Yes No N/A	Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Custody Seals Intact? Yes No N/A	Relinquished By (signature)	Date/Time	Received By (signature) Nicole Poinsette	Date/Time 10-13-17

rev.6/18/15 NK #3 10-13-17

MICROBAC

October 25, 2017

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 17J1389

Re: Dock Wall Inspection

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 16 sample(s) on 10/19/2017 3:00:00PM for the analyses presented in the following report as Work Order 17J1389.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Donna Ruokonen, Managing Director, at donna.ruokonen@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Carey Gadzala
Project Manager

MICROBAC

WORK ORDER SAMPLE SUMMARY

Date: *Wednesday, October 25, 2017*

Client: Arcelor Mittal USA, Inc.
Project: Dock Wall Inspection
Lab Order: 17J1389

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
17J1389-01	17-7 Dup		10/19/2017 17:02	10/19/2017 3:00:00PM
17J1389-02	17-8		10/19/2017 10:25	10/19/2017 3:00:00PM
17J1389-03	17-8 Dup		10/19/2017 10:25	10/19/2017 3:00:00PM
17J1389-04	17-9		10/19/2017 11:44	10/19/2017 3:00:00PM
17J1389-05	17-9 Dup		10/19/2017 11:44	10/19/2017 3:00:00PM
17J1389-06	17-10		10/19/2017 11:51	10/19/2017 3:00:00PM
17J1389-07	17-10 Dup		10/19/2017 11:51	10/19/2017 3:00:00PM
17J1389-08	17-11		10/19/2017 12:02	10/19/2017 3:00:00PM
17J1389-09	17-11 Dup		10/19/2017 12:02	10/19/2017 3:00:00PM
17J1389-10	17-7		10/19/2017 09:56	10/19/2017 3:00:00PM
17J1389-11	17-12		10/19/2017 12:41	10/19/2017 3:00:00PM
17J1389-12	17-12 Dup		10/19/2017 12:41	10/19/2017 3:00:00PM
17J1389-13	17-13		10/19/2017 12:55	10/19/2017 3:00:00PM
17J1389-14	17-13 Dup		10/19/2017 12:55	10/19/2017 3:00:00PM
17J1389-15	17-14		10/19/2017 13:51	10/19/2017 3:00:00PM
17J1389-16	17-14 Dup		10/19/2017 13:51	10/19/2017 3:00:00PM

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection		
Client Sample ID:	17-7 Dup	**Work Order/ID:**	17J1389-01
Sample Description:		**Sampled:**	10/19/2017 17:02
Matrix:	Aqueous	**Received:**	10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***0.94***	0.054	0.10		mg/L	1	10/25/2017 12:38

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client: Arcelor Mittal USA, Inc.
Client Project: Dock Wall Inspection
Client Sample ID: 17-8
Sample Description:
Matrix: Aqueous

Work Order/ID: 17J1389-02
Sampled: 10/19/2017 10:25
Received: 10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***2.0***	0.054	0.10		mg/L	1	10/25/2017 12:40

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection		
Client Sample ID:	17-8 Dup	**Work Order/ID:**	17J1389-03
Sample Description:		**Sampled:**	10/19/2017 10:25
Matrix:	Aqueous	**Received:**	10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***1.9***	0.054	0.10		mg/L	1	10/25/2017 12:42

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client: Arcelor Mittal USA, Inc.
Client Project: Dock Wall Inspection
Client Sample ID: 17-9
Sample Description:
Matrix: Aqueous

Work Order/ID: 17J1389-04
Sampled: 10/19/2017 11:44
Received: 10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***1.5***	0.054	0.10		mg/L	1	10/25/2017 12:44

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection		
Client Sample ID:	17-9 Dup	**Work Order/ID:**	17J1389-05
Sample Description:		**Sampled:**	10/19/2017 11:44
Matrix:	Aqueous	**Received:**	10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***1.5***	0.054	0.10		mg/L	1	10/25/2017 12:46

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection		
Client Sample ID:	17-10	**Work Order/ID:**	17J1389-06
Sample Description:		**Sampled:**	10/19/2017 11:51
Matrix:	Aqueous	**Received:**	10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***3.0***	0.054	0.10		mg/L	1	10/25/2017 12:47

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection		
Client Sample ID:	17-10 Dup	**Work Order/ID:**	17J1389-07
Sample Description:		**Sampled:**	10/19/2017 11:51
Matrix:	Aqueous	**Received:**	10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/24/2017 11:20**
Nitrogen, Ammonia (As N)	eio	A	***2.9***	0.054	0.10		mg/L	1	10/25/2017 12:49

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client: Arcelor Mittal USA, Inc.
Client Project: Dock Wall Inspection
Client Sample ID: 17-11
Sample Description:
Matrix: Aqueous

Work Order/ID: 17J1389-08
Sampled: 10/19/2017 12:02
Received: 10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/25/2017 07:35**
Nitrogen, Ammonia (As N)	eio	A	***ND***	0.054	0.10		mg/L	1	10/25/2017 11:34

MICROBAC

Analytical Results

Date: *Wednesday, October 25, 2017*

Client:	Arcelor Mittal USA, Inc.		
Client Project:	Dock Wall Inspection		
Client Sample ID:	17-11 Dup	**Work Order/ID:**	17J1389-09
Sample Description:		**Sampled:**	10/19/2017 12:02
Matrix:	Aqueous	**Received:**	10/19/2017 15:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **GRIEFF**
Nitrogen, Ammonia as N									Prep Date/Time: **10/25/2017 07:35**
Nitrogen, Ammonia (As N)	eio	A	***0.75***	0.054	0.10		mg/L	1	10/25/2017 11:36